

## **Big page of Learning Apps and Technology for Supporting Students with Autism and other Learning Differences** *Katharina I. Boser, Ph.D.*

### **Links to Dr. Boser's other technology and learning pages**

<http://bit.ly/appsforautism>

This is a wiki site I created that provides video, explanations and pricing for a number of learning apps that is organized into curricular and functional learning areas specific to the needs of students with autism (e.g., literacy, word learning, sensory, functional, etc.)

<http://bit.ly/autismtech>

Another web resource I created was designed specifically with students with Autism in mind so most of the tools focus on autism specific problems, but you may find some of the tools useful, particularly for struggling readers and children with social impairments, under the social language and grammar/communication sections.

### **For a link to great apps rubrics click here:**

<http://tinyurl.com/appsrubrics>

### **A link to Basic iPad info (handout for talk)**

<http://tinyurl.com/BoseriPadBasics>

### **For more detail on reading and writing tools (software):**

<http://bit.ly/readingtools>

This doc is a google page that provides links to some of the best reading education programs with video narratives and tutorials for software (such as intellitools, clicker, donJohnston software, inspiration, tomsnyder, livescribe)

(for more on text to speech and speech to text see links to reading--also a few writing tools e.g., 'step up to writing' and visually supported writing and reading software)  
see also [AT-Tipscast blog](#)

### **Supporting technology integration: Some Videos to watch**

Let's start by thinking about some important facts..regarding technology and learning. How do you argue for the need for technology in the classroom? what are the pros and cons?

**Did you know?**

[http://www.youtube.com/watch?v=PHmwZ96\\_Gos&feature=related](http://www.youtube.com/watch?v=PHmwZ96_Gos&feature=related)

Video of Leo using Ipad (shannon des roches Rosa (see <http://squidalicious.com> )

[http://www.youtube.com/watch?v=zRb3GguSRvY&feature=youtube\\_gdata\\_player](http://www.youtube.com/watch?v=zRb3GguSRvY&feature=youtube_gdata_player)

Video from apple on Autism and iPads

[https://www.youtube.com/watch?v=GEqV\\_8ahr90&feature=youtube\\_gdata\\_player](https://www.youtube.com/watch?v=GEqV_8ahr90&feature=youtube_gdata_player)

## **Universal Design for Learning --**

**an important framework for teaching students with learning differences**

Creating a Universally Designed Learning Space is a teaching model based on neuropsychological

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research regarding cognitive processes. Its main tenets provide another argument for why technology can help students from all kinds of learning backgrounds. The following links are great for learning about UDL and the tools that can help maintain a UDL structured and principled classroom.

### **Resources available on CAST and 21st Century learning**

<http://lessonbuilder.cast.org/>

<http://cast.org/pd/resources/index.html>

<http://www.p21.org/>

[http://www.21stcenturyschools.com/What\\_is\\_21st\\_Century\\_Education.htm](http://www.21stcenturyschools.com/What_is_21st_Century_Education.htm)

International Society of Technology in Education (ISTE)--see <http://iste.org> has developed a set of technology standards for students and teachers/administrators known as NETS. These should be integrated into National and District level technology integration plans. NETS helps provide the rubric and standards to do this most effectively. see [Florida's tech integration matrix](#) for the best example.

**UDL Tech Toolkit** - Free resources for Universal Design for Learning for a variety of curriculum areas (click on the link for one of the 'best' wikis showing demonstrations and tools you can use!) see also **Toolbelt Theory** - Ira Socol

One document I created using Google Spreadsheets contains many more weblinks according to different curricular topic areas. It also contains a sheet (see tabs at bottom) dedicated to Ipad/ipad apps which we will be covering here. <http://bit.ly/bosertechtools>

### **A few Student Learning tools on the Web:**

**Web browsers:** <http://zacbrower.com> (specifically designed to reduce distractors for students with autism to more effectively browse the web)

<http://SweetSearch.com>

<http://playrific.com> (fee-based) Finds child appropriate learning games and videos for you to have ready for your student.

### **Mobile Web 2.0 cloud applications (for higher functioning students or to communicate about data/behavior with parents and other experts working with a student)**

Favorite Study and Student Expression Tools--Watch videos of their use at the sites

[Quizlet](#)

[Evernote](#)

[Vizzle](#)

[Dropbox](#)

[Glogster](#)

[Voicethread](#) (use writing prompts examples..)

### **Ipad , ipod and Android apps, links and resources**

<http://appsineducation.blogspot.com>

[http://www.ipodsibilities.com/iPodsibilities/App\\_Reviews/App\\_Reviews.html](http://www.ipodsibilities.com/iPodsibilities/App_Reviews/App_Reviews.html)

<http://squidalicious.com> maintained by Shannon des Roches Rosa (Leo's mom) Leo has autism and has done wonderfully on his ipad

<http://itaalk.org>

<http://touchautism.com>

Cutting edge lightweight mainstream gadgets with multi-touch technology offer many useful features- iPod (music/audiobooks), online apps, email, help with communication, interactive educational and

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<http://bit.ly/appsforautism>

<http://bit.ly/autismtech>

gaming apps, ebook reader with text to speech, address book, memos etc.

<http://www.assistivetechology.vcu.edu/24470331-iPhone-and-iPod-touch-Apps-for-Special-Education.pdf>

<http://rush2knowledge.com>

<http://slidetolearn.com>

[http://ipadineducation.co.uk/iPad\\_in\\_Education/Welcome.html](http://ipadineducation.co.uk/iPad_in_Education/Welcome.html)

<http://www.digital-teacher.co.uk/2010/07/apps-in-the-classroom.html>

<http://slpsharing.com/app-resources/>

<http://www.mguhlin.org/2010/07/free-education-apps-for-android-os.html>

also Wes Fryer's great list of learning based iPad apps: <http://tinyurl.com/WesFryeriPadLearning>

<http://bit.ly/ipadspreadsheet>

<http://bit.ly/genterapplist>

**Apps for structure, schedules and calendars-** iPrompts, google calendar, 2Do app, iReward Chart, TimeTimer, Visual Timer, myhomework, Picture Planner, Loc8tor Lite, Watchminder2

**Study tools:** Quizlet flashcards, mental case, BrianPop, cardboard, istudious, google docs/to do lists and calendars pocket informant

**Reading apps** ibook, ilibrary with audio, Tumblebooks, MeeGenius, chirp lite, readers with recording function

ruckus readers, LAZ reading level, So Ouat, story patch

work on phonics with sight words apps and Bb Bob app.

**Apps to accommodate or help with writing/spelling:**

Dragon dictation, Speakit, hangman, ithoughts , word magic, wordsmith, Spelltris free, rhymenow, smarty pants phonics, iWPM,

**Math -**, Mathsnacks, Math bingo, kidsmath, imath, quick graph, flashracer, [morgan moody math adventure](#), iformulas, graphit

**Social Studies:** geomaster, National Geo, (see art ) stack the states

**Science apps:** molecules, the elements, 3DBrain, anatomy lite, mitosis, Smithsonian, AMNH,

**Music:** guitar, keyboard, lyrics,

**Drawing:** doodle buddy, sketchit, animation

**Visual Games:** tan zen lite, Find the difference, blue blocks,

**ART:** MOMA, british museum, The Louvre, Masterpiece, museum game,

Consider using **mind mapping and whiteboard software:** popplet, ithoughts, ibrainstorm, whiteboard lite, air sketch

## Great websites for educators to share with students

**Favorite sites on google doc by curriculum area: (these are all available in <http://bit.ly/bosertechtools>)**

Math	Literacy
<a href="http://teacher.tenmarks.com/">http://teacher.tenmarks.com/</a> <a href="http://shoder.org">http://shoder.org</a> (interactives)	<a href="http://bit.ly/readingtools">http://bit.ly/readingtools</a> <a href="#">starfall</a>

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<a href="http://nlvm.org">http://nlvm.org</a> , <a href="http://thinkingblocks.com">http://thinkingblocks.com</a> <a href="http://www.khanacademy.org/">http://www.khanacademy.org/</a> <a href="http://hippocampus.org">http://hippocampus.org</a> Chris Woodin -- kinesthetic math-- landmark school <a href="#">Woodin Math Facts</a> dreambox learning ( fee-based) <a href="#">labyrinth for math</a> , <a href="#">pbskids island</a> lego mindstorms, <a href="#">MIT's Scratch</a> , <a href="#">Google sketchup</a> , Alice 2.0 (from CMU).	onemorestory (fee- based) <a href="#">Cast book builder</a> <a href="http://readwritethink.org">http://readwritethink.org</a> , <a href="#">wordmagnets</a> , now there is an app that does wordmagnets-- digital storytelling sites and writing prompts:== <a href="#">voicethread</a> , mind mapping tools-- <a href="http://xmind.com">http://xmind.com</a> , <a href="http://earlyliteracyskills.wikispaces.com">http://earlyliteracyskills.wikispaces.com</a>
<b>Science:</b> <a href="#">Foss site</a> , <a href="#">cbeebies</a> , <a href="#">Nova</a> , Kidspiration templates (see below)	<b>History:</b> <a href="#">NEH picturing America</a> , <a href="#">History sites</a>

## Treatment approaches for Children with Autism

<http://www.pathfindersforautism.org/> See Resources and 'articles' There are great downloadable resources for physicians here too! Enjoy sharing!

See also <http://www.autismspeaks.org/family-services/resource-guide>

for their free 'toolkits' (first 100 days) and therapy guides and apps guides etc.

<http://www.pathfindersforautism.org/articles/view/parent-tips-theres-an-app-for-that>

This is article is a good review of Augmentative Communication Devices (AAC)

<http://www.pathfindersforautism.org/articles/view/imagine-giving-a-voice-to-someone-with-autism-who-can-not-speak>

## Principles for Evaluating Autism Treatments

By Adapted from guidelines created by Dr. B. J. Freeman

- Approach any new treatment with hopeful skepticism.
- Remember the goal of any treatment should be to help the person with autism to become a fully functioning member of society.
- BEWARE of any program or technique that is touted as effective or desirable for every person with autism.
- BEWARE of any program that thwarts individualization and potentially results in harmful program decisions.
- Be aware that any treatment represents one of several options for a person with autism.
- Be aware that treatment should always depend on individual assessment information that points to it as an appropriate choice for a particular individual with autism.
- Be aware that no new treatment should be implemented until its proponents can specify assessment procedures needed to determine whether it will be appropriate for an individual with autism.
- Be aware that debate over use of various techniques is often reduced to superficial arguments over who is right, moral, and ethical, and who is a true advocate for the child. This can lead to results that are directly opposite to those intended, impeding program progress.
- Do not become so infatuated with a given treatment that functional curriculum, vocational life, and social skills are ignored.
- Be aware that new treatments often have not been validated scientifically.

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#### QUESTIONS TO ASK REGARDING SPECIFIC TREATMENTS

- Will the treatment result in harm to the child?
- How will failure of the treatment affect my child and family?
- Has the treatment been validated scientifically?
- Are assessment procedures specified?
- How will the treatment be integrated into the child's current program?

Click here to read Alisa Rock's '[Advice to Parents](#)'

*Adapted from guidelines by Dr. B. J. Freeman in "Options to Meet the Challenges of Autism," Autism Society of America*

**Myers, S. et al. 2007 Management of Children with Autism Spectrum AAP** download--<http://pediatrics.aappublications.org/content/120/5/1162.full.pdf>

Scott Myers, MD Article: Management of Management of Children With Autism Spectrum

Pediatricians have an important role not only in early recognition and evaluation of autism spectrum disorders but also in chronic management of these disorders. The primary goals of treatment are to maximize the child's ultimate functional independence and quality of life by minimizing the core autism spectrum disorder features, facilitating development and learning, promoting socialization, reducing maladaptive behaviors, and educating and supporting families. To assist pediatricians in educating families and guiding them toward empirically supported interventions for their children, this report reviews the educational strategies and associated therapies that are the primary treatments for children with autism spectrum disorders. Optimization of health care is likely to have a positive effect on habilitative progress, functional outcome, and quality of life; therefore, important issues, such as management of associated medical problems, pharmacologic and nonpharmacologic intervention for challenging behaviors or coexisting mental health conditions, and use of complementary and alternative medical treatments, are also addressed.